## REMARKS

The Examiner has required restriction between the method claims 1-9 and the apparatus claims 10-23. The Examiner's position is that the apparatus could be used to practice another materially different process such as the attachment of ferrites to the surfaces of polymeric matrices. Applicant hereby confirms his election of the method Claims 1-9.

The Examiner has rejected Claim 5 on the ground that the terminology "series of pluses" is not defined in the specification. Claim 5 is amended to now specify that the current "is a pulsed D.C. current." This is specifically set forth on page 4, line 4 of the specification. The Examiner has rejected Claim 6 on the ground that the terminology "a length of magnetic material" is not used in the specification. While the exact term "length of magnetic material" is not used, it is certainly clear from the specification and drawings what the term means and how it is applied. However, Claim 6 is amended to change the term "length" to "core." The term "core" is used at the beginning of paragraph 24 on page 8, as well as other places in the specification.

Claim 1 is amended to add the limitation that the ion exchange resin is nonmagnetic. While the specification does not use the term nonmagnetic, all of the resins used as examples in the specification are nonmagnetic resins, and most ion exchange resins are nonmagnetic. Nonmagnetic resins are clearly included within the scope of the disclosure and the scope of the initial claims.

The Examiner has rejected Claims 1 and 9 under 35 USC 102 as anticipated by Kochen et al. Kochen provides magnetic polymer resins which are ion exchange resins with ferrites attached to the resin surface to make the resin magnetic. Kochen has found that the interaction between a magnetic resin and a magnetic field improves the removal of actinide and heavy metals from water. The magnetic nature of the resin is important. Col. 2, lines 39-43 of Kochen indicate that "Alone, however, organic resins are not especially effective for purposes of removing actinides from water". Further, Fig. 6 of Kochen compares results for plutonium removal using a magnetic resin in the magnetic field and using a nonmagnetic resin in the same magnetic field. Col. 7, lines 6-18 discuss the results and show that the magnetic field only work to improve the results for magnetic resin, not the nonmagnetic resin. Thus, Kochen teaches the importance of using magnetic resin in the

magnetic field. Kochen does not teach that a magnetic field increases the capacity of a nonmagnetic resin and teaches away from that by showing the improved results of the magnetic resin in the magnetic field versus the nonmagnetic resin in the magnetic field. A person skilled in the art would not learn that a magnetic field would improve the capacity of nonmagnetic resins in ordinary ion exchange columns. Claim 1 has been amended to specify the improved results are obtained with nonmagnetic resins. Kochen does not anticipate the method of increasing the capacity of nonmagnetic resins during ordinary ion exchange when the ion exchange is conducted in a magnetic field. Kochen does not anticipate applicant's amended Claim 1.

The Examiner has rejected Claims 1-3, 7, and 8 under 35 USC 102 as anticipated by RU 2064693. The abstract, as quoted by the Examiner, merely says that the magnetic field acts on the magnetic grains of resin which acquire rotary and oscillating movements and move upwardly with the magnetic field to the upper level of the water in the container. They are then separated from the water in a magnetic trap. There is no teaching that the magnetic field does anything the improve the capacity of ion exchange resin. It merely teaches that magnetic slag corrosion products are attracted to and collected with the ferromagnetic ion exchange resin grains and separated from the water flow. As with Kochen, magnetic resin is used. This cannot anticipate applicant's amended claim 1.

The Examiner has rejected Claims 1, 2, and 9 under 35 USC 102 as anticipated by SU 636254. The abstract merely says that water is prepared for brewing by treating the water with an ion exchange resin in the presence of a uniform magnetic field, and that the method is intensive and produces a good quality brewing water. There is nothing in the abstract to indicate why the magnetic field is used and how it is used. Further, there is nothing in the abstract to indication how the magnetic field and the ion exchange process are related and, if related, what effect one has on the other. There are a number of patents that teach treating water by flowing the water through a magnetic field. There are also a number of processes for treating water by ion exchange. The abstract does not relate the magnetic field treatment to the ion exchange treatment. Further, there is nothing in the abstract to indicate that the magnetic field increases the capacity of the ion exchange resin. The abstract says that a good quality brewing water is obtained. It says nothing

about any effect the magnetic field has on the ion exchange process or the ion exchange resin. Therefore, it cannot anticipate applicant's process for increasing the capacity of the ion exchange resin.

Further, as to Claim 2 which requires applying a varying magnetic field to the resin bed, the abstract specifically says that it applies a "uniform" magnetic field. While the Examiner has apparently interpreted the magnetic field range of intensity 6.60-8. a/m as meaning a varying field is applied, this appears contrary to the wording saying that a uniform magnetic field is applied. The 6.60-8. a/m is merely an indication of the range of intensity of the magnetic field that can be used. Once an intensity within the allowable range is selected, the field is kept uniform at the selected intensity. The abstract does not anticipate a "varying magnetic field."

The Examiner has rejected Claims 4 and 6 under 35 USC 103 as unpatentable over Kochen in view of RU'254 or RU'693. For the reasons indicated above in regard to anticipation, applicant asserts that nothing in the combination of art cited makes his invention obvious.

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Respectfully,

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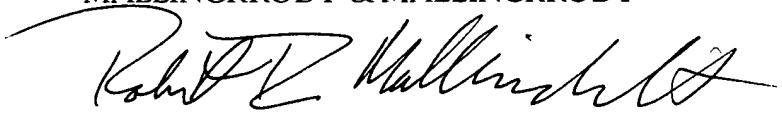

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